



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,220	01/14/2002	J. Randolph Lewis	29488/38131	5743
4743	7590	09/08/2005	EXAMINER	
MARSHALL, GERSTEIN & BORUN LLP 233 S. WACKER DRIVE, SUITE 6300 SEARS TOWER CHICAGO, IL 60606			SHAPIRO, JEFFERY A	
			ART UNIT	PAPER NUMBER
			3653	

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/047,220	Applicant(s) LEWIS, J. RANDOLPH	
	Examiner Jeffrey A. Shapiro	Art Unit 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-23 and 39 is/are pending in the application.
- 4a) Of the above claim(s) 24-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-23 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's arguments regarding the election requirement from the previous action is considered persuasive. All claims are examined below. Additionally, note, for example that Independent Claims 1 and 15 do not appear to recite use of more than one bin, such as by the use of the phrase "at least one bin". The use of the word comprising does not affect this.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnet (US 5,839,566) in view of Frotriede (US 3,742,738). Bonnet discloses the following.

As described in Claims 1 and 15;

- a. a tray (25) having a receiving end adapted to receive articles and a discharge end (note that either side of the tray can be construed as a receiving or a discharge end, depending on what side the material is received or discharged onto the tray), the tray having a dump mode, in which articles in the tray are discharged from the discharge end onto the collection area, and

Art Unit: 3653

- b. a pick mode, in which articles are retained in the tray, the tray being biased under force of gravity toward the dump mode (note that the tray in the level configuration can be construed as a pick mode, and that the tray will become biased into a dump mode where an item is slid off one side or the other, based in part on gravity forces and the tray biasing mechanism);
- c. a releasable latch (the biasing mechanism, (43, 50, 60, 68, 69)) positioned to retain the tray in the pick mode against the force of gravity, the latch being responsive to a release signal to release the tray;
- d. a controller (92) operably coupled to the latch and having a processor programmed to generate the release signal to release the latch,
- e. wherein the bin automatically switches from the pick mode to the dump mode under the force of gravity thereby to discharge articles in the bin onto the collection area;
- f. *wherein the collection of areas comprises a conveyor (16) or (18), (note that it would have been obvious to replace a stationary table with a conveyor to transport items to other locations), and the processor is programmed to generate the release signal as a selected area of the conveyor passes the dumping station;*

Bonnet does not expressly disclose, but Frotriede discloses a tiltable bin mechanism (14) on a supporting frame (62, 65 and 48).

Art Unit: 3653

Both Bonnet and Frotriede are analogous art because Bonnet concerns carrying items on a conveyor having tiltable trays and Frotriede concerns containing items in a bin.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used the bins of Frotriede on top of the stationary trays of Bonnet.

The suggestion/motivation would have been to provide more item support for loose items such as clothing or laundry.

4. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnet (US 5,839,566) in view of Frotriede (US 3,742,738) and further in view of Wehrung et al (US 2001/0023377A1). Bonnet discloses the system described above. Bonnet does not expressly disclose, but Wehrung discloses first and second bins dumping to particular locations on a conveyor. See Wehrung, figure 2b, which illustrates load points (44a and b), figure 4, which illustrates a transport controller controlled by a material control system, and controlled by status inputs (119), paragraphs 79 and 193, as well as paragraph 70, which describes a list of definitions, including "rf tag", "tag controller" and "smart tag controller." Wehrung's system concerns a conveyor system which has a distributed control system to control "zones" of said conveyor system to transport particular loads with identification to various known locations throughout the system.

Both Bonnet and Wehrung are analogous art because the concern conveyor transportation and control.

Art Unit: 3653

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have Wehrung's conveyor distributed control system, to control the conveyor system of Bonnet.

The suggestion/motivation would have been to more accurately direct items through Bonnet's transport system by using input from a material control system and by use of rf-tags.

5. Claims 1-3 and 5-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd et al (US 6,208,908). Boyd discloses the following.

As described in Claims 1 and 15;

- a. a bin (12) having a receiving end adapted to receive articles and a discharge end, the bin having a dump mode, in which articles in the bin are discharged from the discharge end onto the collection area, (note that the bottom of the bin of Boyd pivots so as to dump items located above it) and
- b. a pick mode, in which articles are retained in the bin (note that this is when the bottom of the bin is closed), the bin being biased under force of gravity toward the dump mode;
- c. a releasable latch (52) positioned to retain the bin in the pick mode against the force of gravity, the latch being responsive to a release signal to release the bin (see col. 5, lines11-23);

- d. a controller (18) operably coupled to the latch (see figure 16d) and having a processor programmed to generate the release signal to release the latch,
- e. wherein the bin automatically switches from the pick mode to the dump mode under the force of gravity thereby to discharge articles in the bin onto the collection area (see abstract);
- f. *wherein the collection of areas comprises a conveyor (138), and the processor is programmed to generate the release signal as a selected area of the conveyor passes the dumping station;*

As described in Claims 2 and 16;

- g. the releasable latch comprises an electromagnet; *******(Note that Boyd's latch mechanism is considered to be a functional equivalent to Applicant's. Note also that Applicant's specification does not indicate the criticality of using this type of latch over other types of latches and that Boyd indicates at col. 7, lines 19-35 that any type of door control mechanism may be used with discharge member (32))

As described in Claims 3 and 19;

- h. the processor is programmed to assign pick orders to the dumping station (see col. 7, lines 35-67 and col. 8, lines 1-36);

As described in Claims 4 and 20;

Art Unit: 3653

i. the collection areas comprises a conveyor, and the processor is programmed to generate the release signal as a selected area of the conveyor passes the dumping station (see col. 3, lines 65-67 and col. 4, lines 1-19, noting that moving the dumping apparatus along the conveyor or moving the conveyor along towards a stationary dumping apparatus is considered to be functional equivalents of each other);

As described in Claims 5 and 23;

j. a status indicator attached to the bin near the receiving end, the status indicator being movable between an active position, to provide a visual indication that more articles are to be placed in the bin, and an inactive position, to provide a visual indication that no more articles are to be placed in the bin (see figure 8 and operation box (112) as well as col. 9, lines 5-10);

As described in Claims 6, 15 and 21;

k. a support shaft, wherein the bin is pivotally mounted on the support shaft, the bin having a center of gravity laterally offset from the support shaft so that the bin is biased to a dump position corresponding to the bin dump mode, the bin being rotatable to a pick position corresponding to the bin pick mode;

(See col. 4, lines 9-17 and col. 7, lines 25-35, noting that Applicant's dump mechanism, pivotally mounted, is construed to be amongst the numerous methods well-known to those ordinarily skilled in the art to accomplish

Art Unit: 3653

discharging of articles—in other words, it would be obvious to a person of ordinary skill in the art that if a receptacle is positioned over a center axle, such that its weight is biased, it will act as a teeter-totter type device, or a lever-type device.)

As described in Claims 7 and 22;

l. a weight is attached to the bin near the discharge end to laterally shift the center of gravity of the bin toward the discharge end (see col. 7, lines 25-35);

As described in Claims 8 and 17;

m. a dump pedestal positioned to engage the bin in the dump position, and a pick pedestal positioned to engage the bin in the pick position, the pick pedestal carrying the releasable latch (see col. 7, lines 25-35);

As described in Claims 9 and 18;

n. the dump pedestal is oriented to direct articles onto the collection area (see col. 7, lines 25-35);

As described in Claim 10;

o. an inclined bottom wall so that the discharge end is positioned below the receiving end (see figure 3, noting that the bottom is inclined);

p. a rear flap pivotally attached to the bin and movable between a closed position, in which the rear flap closes off the receive end, and an open position, in which the rear flap is rotated away from the receive end;

Art Unit: 3653

- q. a front flap having a lower mass than the rear flap pivotally attached to the bin and movable between a closed position, in which the front flap closes off the discharge end and engages the releasable latch, an open position, in which the front flap is rotated away from the discharge end;
- r. a cable connecting the front flap to the rear flap so that the front flap is in the open position when the rear flap is in the closed position and the front flap is in the closed position when the rear flap is in the open position;
- s. wherein the bin is in the pick mode when the rear flap is manually placed in the open position and the front flap is held in the closed position by the releasable latch against the force of gravity acting on the open rear flap, and is switched to the dump mode when the latch is released, thereby allowing the force of gravity to pull the rear flap to the closed position and the front flap to the open position;

(See previous discussion and citations above and figures 1-5.)

As described in Claims 11 and 15;

- t. the bin includes a hinged bottom wall movable between a closed position, in which the bottom wall closes off the bin discharge end and is held in place by the releasable latch against the force of gravity, and an open position, in which the bottom wall is rotated away from the discharge end, wherein the bin is in the pick mode when the bottom wall is manually placed in the closed position, and is switched to the dump mode when the

Art Unit: 3653

latch is released, thereby allowing the force of gravity to pull the bottom wall to the open position;

(See previous discussion and citations above.)

As described in Claim 12;

u. the bottom wall is inclined and the receive end is formed at a rear face of the bin;

(See previous discussion and citations above.)

As described in Claim 13;

v. the bottom wall is substantially horizontal and the receive end is formed at a top face of the bin;

(See previous discussion and citations above.)

As described in Claim 14;

w. the bin is manually placed in the pick mode;

(See previous discussion and citations above.)

Boyd does not expressly disclose a conveyor placed below the bins. *However, note that it would have been obvious to one ordinarily skilled in the art to have placed a conveyor under any of Boyd's discharge chutes, such as (118), in place of or in addition to tables (124) in order to transport the items to a desired location. For example, a conveyor could be located before the table, but under the chute, so as to create a buffer or storage area before the work area constituted by the table.*

Therefore, it would have been obvious to combine Bonnet and Weatherly in order to obtain the invention as described in Claims 1-3 and 5-23.

Response to Arguments

6. Applicant's arguments filed 5/19/05 have been fully considered but they are not persuasive. Applicant asserts that because Bonnet disclose use of both a spring and gravity to tilt tray assembly (14) that it does not meet the limitations of Independent Claims 1 and 15. However, the limitations do not exclusively limit influence to be gravity by itself. Applicant's limitations regarding a latching mechanism can be read to include Bonnet's "biasing mechanism" since this biasing mechanism does prevent Bonnet's tray from rotating under the force of gravity. Frotriede can be construed to provide teaching for Bonnet's use of a bin structure in place of a simple platform. However, Frotriede further teaches and discloses a bin that has a latch mechanism (66) that prevents the bin from rotating. This bin can also be construed also as a dumping station, usable with Bonnet's conveyors and trays. The combination of Bonnet, Frotriede and Wehrung reads on Applicant's Independent Claim 39, as described above.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

Art Unit: 3653


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald P. Walsh can be reached on (571)272-6944. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey A. Shapiro
Examiner
Art Unit 3653

September 4, 2005



DONALD P. WALSH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3653